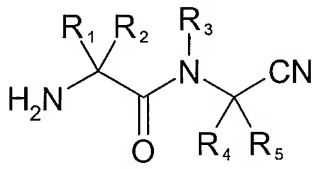
AMENDMENTS TO THE CLAIMS

1. (Original) A compound of formula (I)



(I)

or a pharmaceutically acceptable salt or prodrug thereof, wherein

R1 is hydrogen, C1-6alkyl optionally substituted with a substituent selected from the group consisting of halogen, amino, hydroxy, cyano and C1-3alkoxy; or C2-6alkenyl, C2-6alkynyl, C1-6alkoxy, C1-6alkylthio, C1-6alkylcarbonyl, an unsubstituted or substituted C3-10cycloalkyl group, an unsubstituted or substituted C3-10cycloalkylcarbonyl group, an unsubstituted or substituted C5-10cycloalkenyl group, an unsubstituted or substituted C3-7heterocycloalkyl group, an unsubstituted or substituted C1-6alkylaryl group, an unsubstituted or substituted C2-6alkenylaryl group, an unsubstituted or substituted C1-6alkylheteroaryl group, an unsubstituted or substituted aryl group, an unsubstituted or substituted heteroaryl group, an unsubstituted or substituted aroyl group, an unsubstituted or substituted arylthio group, an unsubstituted or substituted aryloxy group, an unsubstituted or substituted arylsulfonyl group, an unsubstituted or substituted arylamino group, an unsubstituted or substituted heteroaroyl group, an unsubstituted or substituted heteroaryloxy group, an unsubstituted or substituted heteroarylsulfonyl group, an

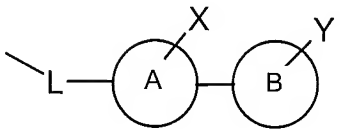
unsubstituted or substituted heteroarylamino group, an unsubstituted or substituted C1-5alkylC3-7cycloalkyl group or an unsubstituted or substituted C1-5alkylC3-7heterocycloalkyl group;

R2 is hydrogen or C1-6alkyl; or R1 and R2 together form an unsubstituted or substituted C3-10cycloalkyl group or an unsubstituted or substituted C3-7heterocycloalkyl group;

R3 is hydrogen or C1-6alkyl; or R1 and R3 together form an unsubstituted or substituted C3-7heterocycloalkyl group;

R4 is hydrogen, C1-6alkyl, C2-6alkenyl, C2-6alkynyl, C1-6alkoxy, C1-6alkylthio, C1-6alkylcarbonyl, C1-6alkylsulfonyl, an unsubstituted or substituted C3-10cycloalkyl group, an unsubstituted or substituted C3-10cycloalkylcarbonyl group, an unsubstituted or substituted C5-10cycloalkenyl group, an unsubstituted or substituted C3-7heterocycloalkyl group, an unsubstituted or substituted C1-6alkylaryl group, an unsubstituted or substituted C2-6alkenylaryl group, an unsubstituted or substituted C1-6alkylheteroaryl group, an unsubstituted or substituted aryl group, an unsubstituted or substituted heteroaryl group, an unsubstituted or substituted aroyl group, an unsubstituted or substituted arylthio group, an unsubstituted or substituted aryloxy group, an unsubstituted or substituted arylsulfonyl group, an unsubstituted or substituted arylamino group, an unsubstituted or substituted heteroaroyl group, an unsubstituted or substituted heteroaryloxy group, an unsubstituted or substituted heteroarylsulfonyl group, an unsubstituted or substituted heteroarylamino group, an unsubstituted or substituted C1-5alkylC3-

7cycloalkyl group or an unsubstituted, substituted C1-5alkylC3-7heterocycloalkyl group or a group of the formula :



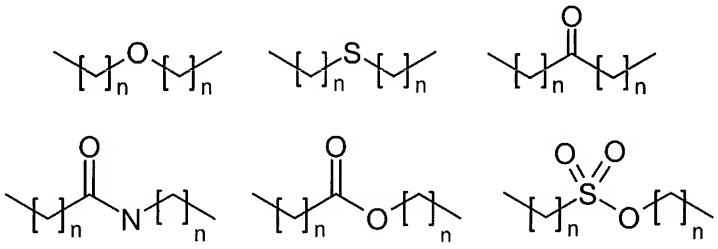
wherein A is a ring system with one ore more substituents X, and A is selected from C5-7cycloalkyl, C5-7heterocycloalkyl, aryl and heteroaryl;

X being the same or different selected from hydrogen, Cl, Br, F, I, hydroxy, amino, cyano, trifluoromethyl, C1-6alkyl, C1-6alkylthio or C1-6alkoxy;

B is a ring system with one ore more substituents Y, and B is selected from C5-7cycloalkyl, C5-7heterocycloalkyl, aryl and heteroaryl;

Y being the same or different selected from hydrogen, Cl, Br, F, I, hydroxy, amino, cyano, trifluoromethyl, C1-6alkyl, C1-6alkylthio or C1-6alkoxy;

-L- is a linker, which is C1-6alkyl or C2-6alkenyl, or a moiety selected from the group consisting of



and, wherein the linker -L- may be attached via either of the two free bonds to the ring A;

n is the same or different integer selected from 0, 1, 2 and 3;

R5 is hydrogen or C1-6alkyl; or R4 and R5 together form an unsubstituted or substituted C3-10cycloalkyl group or an unsubstituted or substituted C3-7heterocycloalkyl group;

wherein a substituted group is substituted with one, two or three substituents independently selected from the group consisting of C1-6alkyl, C1-6alkoxy, C1-6alkylthio, C1-6alkylcarbonyl, C1-6-N-alkylamide, dialkylamino-C1-6alkyl, amide, hydroxy, carboxy, amino, nitro, halogen, trifluoromethyl, trifluoromethoxy, trifluoromethylthio and cyano.

2. (Original) A compound according to claim 1, wherein R1 is selected from the group consisting of hydrogen, C1-6alkyl, an unsubstituted or substituted aryl, an unsubstituted or substituted C1-6alkylaryl group, an unsubstituted or substituted C1-6alkylheteroaryl group, or an unsubstituted or substituted C3-10-cycloalkyl group.

3. (Original) A compound according to claim 1 or 2, wherein R1 is hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, phenyl, benzyl or cyclohexyl.

4. (Previously Presented) A compound according to claim 1, wherein R1 is hydrogen, methyl or ethyl.

5. (Original) A compound according to claim 1, wherein R1 and R2 together form an unsubstituted or substituted C3-10cycloalkyl group or an unsubstituted or substituted C3-7heterocycloalkyl group.

6. (Previously Presented) A compound according to claim 1, wherein R1 and R2 together form an unsubstituted or substituted cyclohexyl group.

7. (Original) A compound according to claim 1, wherein R1 and R3 together form an unsubstituted or substituted C3-7heterocycloalkyl group.

8. (Previously Presented) A compound according to claim 1, wherein R1 and R3 together form a pyrrolidonyl or piperidonyl.

9. (Previously Presented) A compound according to claim 1, wherein R2 is hydrogen.

10. (Original) A compound according to claim 1, wherein R3 is hydrogen or methyl.

11. (Previously Presented) A compound according to claim 1, wherein R4 is selected from the group consisting of hydrogen, C1-6alkyl, an unsubstituted or substituted C1-6alkylaryl group, an unsubstituted or substituted C1-6alkenylaryl group and an unsubstituted or substituted C1-6alkylheteroaryl group.

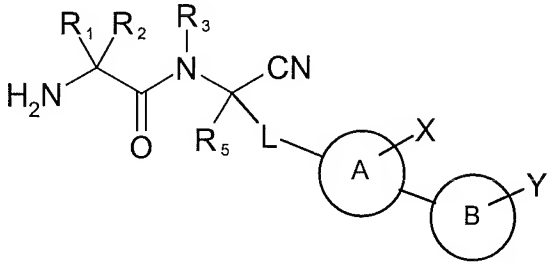
12. (Previously Presented) A compound according to claim 1, wherein R4 is hydrogen, unsubstituted or substituted benzyl, 2-phenylethyl, 3-phenylprop-2-ene, [1,1'-biphenyl-4-yl]methyl or [1,1'-biphenyl-2-yl]methyl.

13. (Previously Presented) A compound according to claim 1, wherein R5 is hydrogen.

14. (Previously Presented) A compound according to claim 1, wherein R4 and R5 together form an unsubstituted or substituted C3-10cycloalkyl group or an unsubstituted or substituted C3-7heterocycloalkyl group.

15. (Previously Presented) A compound according to claim 1, wherein at least one of R4 and R5 is hydrogen.

16. (Previously Presented) A compound according to claim 1 with the following structure



wherein R1, R2, R3, R5, A, B, X, Y and L are defined in claim 1.

17. (Previously Presented) A compound according to claim 1, wherein R4 is

[1,1'-biphenyl-4-yl]methyl, [1,1', 2-methylbiphenyl-4-yl]methyl, [1,1', 3-methylbiphenyl-4-yl]methyl, [1,1', 2-hydroxybiphenyl-4-yl]methyl, [1,1', 3-hydroxybiphenyl-4-yl]methyl, [1,1', 2-methoxybiphenyl-4-yl]methyl, [1,1', 3-methoxybiphenyl-4-yl]methyl, [1,1', 2-methylthiobiphenyl-4-yl]methyl, [1,1', 3-methylthiobiphenyl-4-yl]methyl, [1,1', 2-cyanobiphenyl-4-yl]methyl, [1,1', 3-cyanobiphenyl-4-yl]methyl, [1,1', 2-aminobiphenyl-4-yl]methyl, [1,1', 3-aminobiphenyl-4-yl]methyl, [1,1', 2-fluorobiphenyl-4-yl]methyl, [1,1', 3-fluorobiphenyl-4-yl]methyl, [1,1', 2-chlorobiphenyl-4-yl]methyl, [1,1', 3-chlorobiphenyl-4-yl]methyl, [1,1', 2-bromobiphenyl-4-yl]methyl, [1,1', 3-bromobiphenyl-4-yl]methyl, [1,1', 2'-fluorobiphenyl-4-yl]methyl, [1,1', 3'-fluorobiphenyl-4-yl]methyl, [1,1', 4'-fluorobiphenyl-4-yl]methyl, [1,1', 2'-chlorobiphenyl-4-yl]methyl, [1,1', 3'-chlorobiphenyl-4-yl]methyl, [1,1', 4'-chlorobiphenyl-4-yl]methyl, [1,1', 2'-bromobiphenyl-4-yl]methyl, [1,1', 3'-bromobiphenyl-4-yl]methyl, [1,1', 4'-bromobiphenyl-4-yl]methyl, [1,1', 2'-cyanobiphenyl-4-yl]methyl, [1,1', 3'-cyanobiphenyl-4-yl]methyl, [1,1', 4'-cyanobiphenyl-4-yl]methyl, [1,1', 4'-hydroxybiphenyl-4-yl]methyl, [1,1', 4'-aminobiphenyl-4-yl]methyl, [1,1', 4'-methoxybiphenyl-4-yl]methyl, [1,1', 4'-methylthiobiphenyl-4-yl]methyl, [1,1', 4'-trifluoromethylbiphenyl-4-yl]methyl, [1,1', 2-methyl-4'-fluorobiphenyl-4-yl]methyl, [1,1', 2-chloro-4'-cyanobiphenyl-4-yl]methyl, [1,1', 2-methoxy-3'-fluorobiphenyl-4-yl]methyl, [1,1', 2-hydroxy-2'-fluorobiphenyl-4-yl]methyl, [1,1', 3-amino-3'-methoxybiphenyl-4-yl]methyl, [1,1', 2-fluoro-4'-fluorobiphenyl-4-yl]methyl

[2-phenyl-1,3-thiazol-4-yl]methyl, [5-phenylpyridin-3-yl]methyl, [3-pyrimidin-5-ylphenyl]methyl, [3-pyridin-2-ylphenyl]methyl, [3-pyridin-4-ylphenyl]methyl, [3-(1H-indol-6-yl)phenyl]methyl, [1-(2-fluorophenyl)piperidin-4-yl]methyl, [3-fluoro-4-(1-piperidinyl)phenyl]methyl, [1,1'-biphenyl-4-yl]ethyl, [1,1', 2-methylbiphenyl-4-yl]ethyl, [1,1', 3-

methylbiphenyl-4-yl]ethyl, [1,1', 2-hydroxybiphenyl-4-yl]ethyl, [1,1', 3-hydroxybiphenyl-4-yl]ethyl, [1,1', 2-methoxybiphenyl-4-yl]ethyl, [1,1', 3-methoxybiphenyl-4-yl]ethyl, [1,1', 2-methylthiobiphenyl-4-yl]ethyl, [1,1', 3-methylthiobiphenyl-4-yl]ethyl, [1,1', 2-cyanobiphenyl-4-yl]ethyl, [1,1', 3-cyanobiphenyl-4-yl]ethyl, [1,1', 2-aminobiphenyl-4-yl]ethyl, [1,1', 3-aminobiphenyl-4-yl]ethyl, [1,1', 2-fluorobiphenyl-4-yl]ethyl, [1,1', 3-fluorobiphenyl-4-yl]ethyl, [1,1', 2-chlorobiphenyl-4-yl]ethyl, [1,1', 3-chlorobiphenyl-4-yl]ethyl, [1,1', 2-bromobiphenyl-4-yl]ethyl, [1,1', 3-bromobiphenyl-4-yl]ethyl, [1,1', 2'-fluorobiphenyl-4-yl]ethyl, [1,1', 3'-fluorobiphenyl-4-yl]ethyl, [1,1', 4'-fluorobiphenyl-4-yl]ethyl, [1,1', 2'-chlorobiphenyl-4-yl]ethyl, [1,1', 3'-chlorobiphenyl-4-yl]ethyl, [1,1', 4'-chlorobiphenyl-4-yl]ethyl, [1,1', 2'-bromobiphenyl-4-yl]ethyl, [1,1', 3'-bromobiphenyl-4-yl]ethyl, [1,1', 4'-bromobiphenyl-4-yl]ethyl, [1,1', 2'-cyanobiphenyl-4-yl]ethyl, [1,1', 3'-cyanobiphenyl-4-yl]ethyl, [1,1', 4'-cyanobiphenyl-4-yl]ethyl, [1,1', 4'-trifluoromethylbiphenyl-4-yl]ethyl, [1,1', 2-methyl-4'-fluorobiphenyl-4-yl]ethyl, [1,1', 2-chloro-4'-cyanobiphenyl-4-yl]ethyl, [1,1', 2-methoxy-3'-fluorobiphenyl-4-yl]ethyl, [1,1', 2-hydroxy-2'-fluorobiphenyl-4-yl]ethyl, [1,1', 3-amino-3'-methoxybiphenyl-4-yl]ethyl, [2-phenyl-1,3-thiazol-4-yl]ethyl, [5-phenylpyridin-3-yl]ethyl, [3-pyrimidin-5-ylphenyl]ethyl, [3-pyridin-2-ylphenyl]ethyl, [3-pyridin-4-ylphenyl]ethyl, [3-(1H-indol-6-yl)phenyl]ethyl, [1-(2-fluorophenyl)piperidin-4-yl]ethyl, [3-fluoro-4-(1-piperidinyl)phenyl]ethyl, [1,1'-biphenyl-4-yl]methyloxymethyl, [1,1',4'-fluorobiphenyl-4-yl]methyloxymethyl, [1,1'-biphenyl-4-yl]methylthiomethyl, [1,1',4'-fluorobiphenyl-4-yl]methylthiomethyl, [1,1'-biphenyl-4-yl]ethylenyl or [1,1',4'-fluorobiphenyl-4-yl]ethylenyl.

18. (Original) A compound according to claim 1, selected from the group consisting of

N-(2S-2-amino-3-phenylpropionyl)-aminoacetonitrile;

(2S)-N-[(2S)-2-aminobutanoyl]-2-amino-3-phenylpropionitrile;

(2S)-N-Methyl-N-[(2S)-2-aminobutanoyl]-2-amino-3-phenylpropionitrile;

(2S)-N-[(2S)-2-aminobutanoyl]-2-amino-3-(p-chlorophenyl)propionitrile;

(2S)-N-[(2S)-2-aminobutanoyl]-2-amino-3-(1,1'-biphenyl-4-yl)propionitrile;

(2S)-(4Z)-N-[(2S)-2-aminobutanoyl]-2-amino-5-phenyl-pent-4-ene-nitrile;

(2S)-N-[(2S)-2-aminobutanoyl]-2-amino-4-phenylbutyronitrile and

(2S)-N-[(2S)-3-phenylaminopropanoyl]-2-amino-3-phenylpropionitrile.

19. (Original) The compound according to claim 1, which exhibits an IC50 value of 500 μM or less such as, e.g., 100 μM or less, 50 μM or less, 1 μM or less, 500 nM or less, 100 nM or less, 75 nM or less, 50 nM or less, or 25 nM or less.

20. (Previously Presented) A compound according to claim 1 for use in medicine.

21. (Original) A compound according to claim 20 for use as a protease inhibitor.

22. (Original) A compound according to claim 21 for use as a cysteine protease inhibitor.

23. (Previously Presented) A compound according to claim 20 for use in the treatment, prophylaxis and/or diagnosis of inflammation, type2 diabetes, asthma, severe influenza, respiratory syncytial virus infection, CD8 T cell inhibition, inflammatory bowel diseases,

psoriasis, atopic dermatitis, Papillon Lefevre syndrome, Haim Munk syndrome, gum disease, periodontitis, rheumatoid arthritis, Huntington's disease, Chagas' disease, Alzheimer's disease, sepsis or for application in target cell apoptosis.

24. (Previously Presented) A pharmaceutical composition comprising, as an active substance, a compound as defined in claim 1 or a pharmaceutically acceptable salt thereof together with a pharmaceutically acceptable carrier or diluent.

25. (Original) A pharmaceutical composition according to claim 24 in unit dosage form, comprising from about 1 mg to about 1000 mg such as, e.g., from about 10 mg to about 500 mg, from about 0.05 to about 100 mg or from about 0.1 to about 50 mg, of the active substance.

26. (Previously Presented) A pharmaceutical composition according to claim 24 for oral, nasal, transdermal, pulmonal or parenteral administration.

27. (Previously Presented) A method for the treatment of ailments, the method comprising administering to a subject in need thereof an effective amount of a compound as defined in claim 1 or of a composition.

28. (Original) The method according to claim 27, wherein the effective amount of the compound is in a range of from about 1 mg to about 1000 mg such as, e.g., from about 10 mg to about 500 mg, from about 0.05 to about 100 mg or from about 0.1 to about 50 mg per day.

29. (Previously Presented) Use of a compound as defined in claim 1 for the preparation of a medicament.

30. (Previously Presented) Use of a compound as defined in claim 1 for the preparation of a medicament for treatment, prophylaxis and/or diagnosis of inflammation, type2 diabetes, asthma, severe influenza, respiratory syncytial virus infection, CD8 T cell inhibition, inflammatory bowel diseases, psoriasis, atopic dermatitis, Papillon Lefevre syndrome, Haim Munk syndrome, gum disease, periodontitis, rheumatoid arthritis, Huntington's disease, Chagas' disease, Alzheimer's disease, sepsis or for application in target cell apoptosis.

31. (Previously Presented) A method for modulating DPP-I levels in a subject in need thereof comprising administering to said subject an amount of a compound as defined in claim 1 or a composition in an amount effective to modulate said DPP-I levels in said subject.

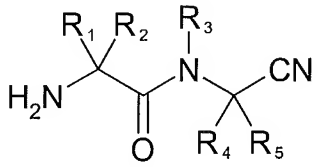
32. (Original) A method according to claim 31, wherein said DPP-I is inhibited.

33. (Original) A method according to claim 32, wherein DPP-I is selectively inhibited as determined by IC50(Cathepsin B)/ IC50(DPP-I assay) is 25 or more such as, e.g., 50 or more, 75 or more, 100 or more, 250 or more, 500 or more or 750 or more.

34. (Previously Presented) The method according to claim 32, wherein DPP-I is selectively inhibited as determined by IC50(Cathepsin H)/ IC50(DPP-I assay) is 25 or more such as, e.g., 50 or more, 75 or more, 100 or more, 250 or more, 500 or more or 750 or more.

35. (Previously Presented) The method according to claim 32, wherein DPP-I is selectively inhibited as determined by IC50(Cathepsin L)/ IC50(DPP-I assay) is 25 or more such as, e.g., 50 or more, 75 or more, 100 or more, 250 or more, 500 or more or 750 or more.

36. (New) A compound of formula (I)



(I)

or a pharmaceutically acceptable salt or prodrug thereof, wherein

R1 is C1-6alkyl optionally substituted with a substituent selected from the group consisting of halogen, amino, hydroxy, cyano and C1-3alkoxy; an unsubstituted or substituted C3-10cycloalkyl group; an unsubstituted or substituted C1-6alkylaryl group; an unsubstituted or substituted C1-6alkylheteroaryl group; or an unsubstituted or substituted aryl group;

R2 is hydrogen;

R3 is hydrogen;

R4 is C1-6alkyl; an unsubstituted or substituted C1-6alkylaryl group; an unsubstituted or substituted C2-6alkenylaryl group; or an unsubstituted or substituted C1-6alkylheteroaryl group; and

R5 is hydrogen;

wherein a substituted group is substituted with one, two or three substituents independently selected from the group consisting of C1-6alkyl, C1-6alkoxy, C1-6alkylthio, C1-6alkylcarbonyl, C1-6-N-alkylamide, dialkylamino-C1-6alkyl, amide, hydroxy, carboxy, amino, nitro, halogen, trifluoromethyl, trifluoromethoxy, trifluoromethylthio and cyano.

37. (New) A compound according to claim 36, wherein R1 is C1-6alkyl and R4 is an unsubstituted or substituted C1-6alkylaryl group.